

IN THE CLAIMS

1. (Currently Amended) A method comprising:

receiving a request to establish **an end-to-end network** communication session between a subscriber unit in a wireless communication system and a data network access server through a basestation; and

selectively generating a communication session identifier to uniquely identify the communication session from a plurality of communication sessions supported by the network access server to enable ~~mobility management~~ **an enhanced point-to-point communication protocol** within ~~the~~ **a** point-to-point communication session between the basestation and the network access server.

2. (Original) A method according to claim 1, further comprising:

determining, at the network access server, whether the received request is a request for a new communication session or a handoff of an existing communication session.

3. (Original) A method according to claim 2, wherein ~~generation of the~~ **selectively generating a** communication session identifier ~~is selectively performed~~ **further comprises generating a communication session identifier** if the received request is a request for a new communication session **and no communication session identifier is included in the request.**

4. (Original) A method according to claim 2, wherein determining comprises:

analyzing attribute-value pair(s) (AVP) of the received ~~incoming-call~~ request to identify a callType AVP; and

identifying the ~~incoming-call~~ received request as a request for a new communication session if the callType AVP is absent from the incoming call request, or if an identified callType AVP associated with the ~~incoming-call~~ received request denotes a new call.

5. (Original) A method according to claim 1, wherein selectively generating the communication session identifier comprises:

composing a deterministic element of the communication session identifier;
composing a random element of the communication session identifier; and
employing a mathematical function to generate the communication session identifier using the deterministic element and the random element.

6. (Original) A method according to claim 5, wherein the deterministic element is comprised of one or more of an electronic serial number (ESN) of the accessing subscriber unit, a media access control (MAC) address of the subscriber unit, and/or a telephone number associated with the subscriber unit.

7. (Original) A method according to claim 5, wherein the random element is comprised of one or more of a pseudo-random number, and/or a true random number generated from radio frequency (RF) energy of thermal noise associated with the communication session.

8. (Currently Amended) A method according to claim 5, wherein the mathematical function employed concatenates the deterministic element and the random element to generate the communication session identifier.

9. (Currently Amended) A method according to claim 5, wherein the mathematical function employed generates a hash of the deterministic element and the random element to generate the communication session identifier.

10. (Currently Amended) An article of manufacture comprising:

a machine accessible storage medium comprising having stored therein a plurality of executable instructions which, when executed by an accessing computing device, implement the method according to claim 1 cause an electronic system to:

receive a request to establish an end-to-end network communication session between a subscriber unit in a wireless communication system and a data network access server through a first basestation; and

selectively generate a communication session identifier to uniquely identify the communication session from a plurality of communication sessions supported by the network access server to enable an enhanced point-to-point communication protocol within a point-to-point communication session between the basestation and the network access server.

11. (Currently Amended) An apparatus comprising:

a network interface, to receive a request for ~~a point-to-point~~ an end-to-end network communication session between a wireless communication system subscriber unit and the apparatus through a basestation; and

a communications agent, to selectively generate a communication session identifier to uniquely identify the network communication session from a plurality of communication sessions supported by the apparatus to enable ~~mobility management within the~~ an enhanced point-to-point communication protocol within a point-to-point communication session between the basestation and the network access server.

12. (Original) An apparatus according to claim 11, wherein the communications agent determines whether the received request is a request for a new communication session or a handoff of an existing communication session.

13. (Currently Amended) An apparatus according to claim 11, wherein the communications agent comprises:

a session identification generator, selectively invoked by the communications agent, to dynamically generate a communication session identifier including at least a deterministic element and a random element.

14. (Currently Amended) An apparatus according to claim 13, wherein the communications agent analyzes attribute-value pair(s) (AVP) of a received incoming call request control command to identify a callType AVP to determine whether ~~the~~ an incoming call request indicates a new communication session or a handoff of an existing communication session.

15. (Currently Amended) An apparatus according to claim 14, wherein the communications agent selectively invokes the communication session identification generator if the callType AVP denotes a ~~newCall~~ call-type new call, or if the callType AVP is not identified within the incoming call request control command.

16. (Original) An apparatus according to claim 13, wherein the session identification generator composes the deterministic element using one or more of an electronic serial number (ESN) of the accessing subscriber unit, a media access control (MAC) address of the subscriber unit, and/or a telephone number of the subscriber unit.

17. (Original) An apparatus according to claim 13, wherein the session identification generator composes the random element of the session identifier utilizing a pseudo-random number generator.

18. (Original) An apparatus according to claim 13, wherein the session identification generator composes the random element of the session identifier by generating a true random number from radio frequency (RF) thermal noise.

19. (Original) An apparatus according to claim 13, wherein the session identification generator composes a session identifier for the communication session by computing a function of one or more of at least the deterministic element and/or the random element.

20. (Currently Amended) A machine accessible medium having stored therein a plurality of executable instructions which, when executed by an accessing machine, implement a communications agent to receive a request from a wireless communication system subscriber unit through a basestation for a point-to-point communication session with the accessing machine and to selectively generate a communication session identifier to uniquely identify the point-to-point communication session from one or more of a plurality of communication sessions supported by the accessing machine, and to enable ~~mobility management~~ an enhanced point-to-point communication protocol within the point-to-point communication session between the basestation and the accessing machine.

21. (Original) A machine accessible medium according to claim 20, wherein the medium is a storage device.

22. (Original) A machine accessible medium according to claim 20, wherein the medium is a propagated signal.

23. (Original) A machine accessible medium according to claim 20, wherein the communications agent generates the session identifier upon determining that an incoming call request is for a new communication session and not a handoff of an existing communication session.

24. (Original) A machine accessible medium according to claim 23, wherein the communications agent dynamically generates a unique session identifier including a deterministic element and a random element.

25. (New) A method comprising:

receiving a request to establish an end-to-end network communication session between a subscriber unit in a wireless communication system and a data network access server through a first basestation;

determining whether the request includes a recognized communication session identifier (ID), an unrecognized communication session ID, or no communication session ID;

handing over an existing communication session to the first basestation from a second basestation if a recognized session ID is included in the request;

generating a new session ID if a communication session ID is not included in the request;
and

creating a new communication session between the subscriber unit and the data network access server through the first basestation when a new session ID is generated or identified.

26. (New) The method of claim 25, wherein a recognized session ID is included in the request when both a deterministic element and a random element of a session ID are included in the request and both the deterministic element and the random element are matched with values stored in a data management structure.

27. (New) The method of claim 25, wherein an unrecognized session ID is included in the request when both a deterministic element and a random element of a session ID are included in the request but at least one of the deterministic element and the random element is not matched with a value stored in a data management structure.
28. (New) The method of claim 25, further comprising:
determining whether an unrecognized session ID in the request identifies a new session or a zombie session.
29. (New) The method of claim 28, wherein determining whether an unrecognized session ID in the request identifies a new session or a zombie session comprises:
identifying a new session if both a deterministic element and a random element of an unrecognized session ID are compared against values stored in a data management structure and there are no matches; and
identifying a zombie session if a deterministic element of the session ID matches a value stored in a data management structure and a random element of the session ID does not match any values stored in the data management structure.
30. (New) The method of claim 25, wherein creating a new communication session comprises:
identifying at a network access point a received request for a new communication session from the first basestation;
storing the session ID in a data management structure;

31. (New) The method of claim 30, wherein identifying the received request for the new communication session from the first basestation comprises:

analyzing attribute value pair(s) (AVP) of the received request to identify a callType AVP; and

identifying the received request as a request for a new communication session if the callType AVP is absent from the request or if an identified callType AVP associated with the request denotes a new call.